

## **Math 7**

### Adding Integers

#### *Some Basic Guidelines - Tips*

- ▶ *All positive numbers*  
Add the numbers. The answer will always be positive.  
 $(+8) + (+3) = (+11)$

- ▶ *All negative numbers*  
Add the numbers. The answer will always be negative.  
 $(- 8) + (- 3) = (- 11)$

- ▶ *Some positive and some negative numbers*  
 $(- 6) + (+5) =$

Ignoring whether the numbers are positive or negative, subtract the smaller number from the larger number:

$$6 - 5 = 1$$

Use the sign (+) or (-) of the larger number for your answer ~ in the case of this example, (-). Therefore:

$$6 - 5 = (- 1)$$

### **Adding with more than two numbers**

For example:  $(- 6) + (+5) + (+7) + (+4) + (- 3) =$

Add all the positive numbers:

$$(+5) + (+7) + (+4) = (+16)$$

Add all the negative numbers:

$$(- 6) + (- 3) = (- 9)$$

Ignoring whether the numbers are positive or negative, subtract the smaller number from the larger number:

$$16 - 9 = 7$$

Use the sign (+) or (-) of the larger number for your answer ~ in the case of this example, (+). Therefore:

$$16 - 9 = (+7)$$

## **Math 7**

### Subtracting Integers *Some Basic Guidelines - Tips*

**NEVER** !!!! subtract **positive** and negative numbers. Always turn a subtraction question into an addition question.

For example:  $(+7) - (-15) =$

*Step #1:*

Change the subtraction symbol to an addition symbol.

$$(+7) + (-15) =$$

*Step #2:*

Also change the symbol of the number to the right of the new addition symbol. If the number was **negative**, it will now be **positive**, and if the number was **positive**, it will now be **negative**. In the case of this example, **-15** now becomes **+15**, giving the new equation:

$$(+7) + (+15) =$$

*Step #3:*

Follow the steps for adding integers

$$(+7) + (+15) =$$

### **Subtracting with more than two numbers**

For example:  $(-6) - (+5) - (+7) - (+4) - (-3) =$

Change the all subtraction symbols to an addition symbols:

$$(-6) + (+5) + (+7) + (+4) + (-3) =$$

Also change the symbol of the number to the right of the new addition symbol. If the number was negative, it will now be positive, and if the number was positive, it will now be negative. The new equation will now read  $(-6) + (-5) + (-7) + (-4) + (+3) =$

**Now follow the addition rules outlined above**

Add all the positive numbers:

$$(+3) = (+3)$$

Add all the negative numbers:

$$(-6) + (-5) + (-7) + (-40) = (-22)$$

Ignoring whether the numbers are positive or negative, subtract the smaller number from the larger number:

$$22 - 3 = 19$$

\*\* Use the sign (+) or (-) of the larger number for your answer ~ in the case of this example, (-). Therefore:

$$22 - 3 = (-19)$$

**\*\* We will be modeling other ways to answer these equations, such as the use of number lines and integer pogs, where appropriate. \*\***

### **These Practice Examples Will Be Assigned In Class:**

1)  $(+3) + (+2) - (+1) =$   
 $(+3) + (+2) + (-1) = (+4)$

2)  $(+1) + (+2) - (+3) =$   
 $(+1) + (+2) + (-3) = 0$

3)  $(-3) - (+2) + (+1) =$   
 $(-3) + (-2) + (+1) = (+4)$

4)  $(-3) - (+2) - (+1) =$   
 $(-3) + (-2) + (-1) = (-6)$

5)  $(+3) - (+2) - (+1) =$   
 $(+3) + (-2) + (-1) = 0$